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## Possible Consequences of the New Operation Criteria for Bariatric Surgery in Switzerland

David Faeh • Renward Hauser

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Since the beginning of 2011, in Switzerland, criteria for bariatric surgery interventions have changed. The cutoff for assumption of costs by health insurance decreased from  $\text{BMI} \geq 40$  to  $\text{BMI} \geq 35 \text{ kg/m}^2$ . In addition, there is no more age restriction, and proof of comorbidity is not required anymore [1]. Basically, this corresponds to the criteria existing before 1999. Although surgery is now possible for all ages, interventions in persons aged  $<18$  and  $>65$  years remain an exception.

In 2009, about 5.1 Mio persons aged 18–65 years lived in Switzerland [2]. As shown in Table 1, about 2% of adults can be expected to have a  $\text{BMI} \geq 35 \text{ kg/m}^2$  [3, 4]. As is the case in most countries, in Switzerland, obesity prevalence is underestimated by studies using self-reports [5]. Nevertheless, the estimate from the study with measurements may be considered as conservative, because

the prevalence has probably increased since 2003. Moreover, non-participants may be more frequently obese than participants leading to an underrepresentation of obese persons in health surveys [6]. Based on an expected prevalence of 2%, about 100,000 are likely to fulfil the recently introduced criteria.

Since in Switzerland health insurance is mandatory, the new criteria could result in an increase of health expenditures. The average costs of a surgical intervention are between 12,000 and 25,000 CHF (Swiss Franc, US \$13,600–26,300) [7]. Aftercare costs decrease from 3,500 CHF in the first postoperative year to 2,500 in the second year to 1,000–1,500 CHF thereafter [1, 7]. While the prevalence of  $\text{BMI} 25\text{--}34 \text{ kg/m}^2$  is probably stagnating or even decreasing in Switzerland [8], this may not be the case for  $\text{BMI} \geq 35 \text{ kg/m}^2$  (Table 1). A further increase of expenditures related with bariatric surgery interventions is therefore possible. However, direct and indirect costs associated with obesity are substantial in Switzerland [9]. Possibly, between 15% and 20% of potential candidates for bariatric surgery have diabetes (Table 1). Surgical interventions are generally “cost-effective” after 4–5 years [1, 7]. Therefore, on the long run, the changed criteria could attenuate further increase in health expenditures. Moreover, before introduction of the new criteria, no adequate therapy could be offered to many patients with  $\text{BMI} 35\text{--}39 \text{ kg/m}^2$ .

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**Table 1** Prevalence (%) of obesity (class II and III) and of diabetes mellitus in that population based on studies with self-reports and measurements, Switzerland, 1992–2007

Study	Year	Men		Women	
		BMI $\geq 35$ kg/m <sup>2</sup> (%)	Diabetes (%) <sup>a</sup>	BMI $\geq 35$ kg/m <sup>2</sup> (%)	Diabetes (%) <sup>a</sup>
SHS92	1992/1993	1.0	NA	1.1	NA
SHS97	1997	1.0	8	1.4	18
SHS02	2002	1.0	15	1.7	14
SHS07	2007	1.6	17	1.8	18
CoLaus	2003	1.6	20	2.3	43

SHS Swiss Health Survey—self reported height and weight and diabetes (ever diagnosed); CoLaus Cohorte Lausannoise—measured weight and height, diabetes based on fasting blood glucose  $\geq 7.0$  mmol/l or treatment; NA not available

<sup>a</sup> Prevalence of diabetes mellitus in persons with BMI  $\geq 35$  kg/m<sup>2</sup>

**Conflicts of Interest** None.

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